



PATENT

Attorney Docket No. A-71386-8

Dorsey File No. 463077-00275

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Lazar et al

Serial No.: 10/822,231

Filing Date: March 26, 2004

For: *Optimized Fc Variants and Methods for  
Their Generation*

Examiner: Crowder, Chun

Art Unit: 1644

CERTIFICATE OF MAILING

I hereby certify that this correspondence, including listed enclosures, is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450 on:

Dated: May 12, 2006

Signed: Victoria Linne Poulsen  
Victoria Linne Poulsen

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and in accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicants wish to draw the attention of the U.S. Patent and Trademark Office to the references cited on the accompanying form PTO/SB/8A. In accordance with 1287 Off. Gaz. Pat. Office 163, 10/19/2004, no copies of U.S. patents and U.S. published applications are enclosed. Copies of all other references are enclosed.

Since copies of the references were provided either by the Applicant or the Examiner in the following related U.S. Application: Serial No. U.S.S.N. 10/672,280 filed September 26, 2003; upon which the instant application relies for its priority date, in accordance with 37 C.F.R. § 1.98(d), no copies of these references are enclosed.

Further, in satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and as required by M.P.E.P. § 2001.06(b), Applicant notes that the present application is related to the following pending patent applications:

1. U.S.S.N. 11/396,495, filed March 31, 2006;
2. U.S.S.N. 11/174,287, filed June 30, 2005;
3. U.S.S.N. 11/124,620, filed May 5, 2005;

Serial No.: 10/822,231  
Filing Date: March 26, 2004

4. U.S.S.N. 10/672,280 filed September 26, 2003;
5. U.S.S.N. 10/379,392 filed March 3, 2003 (now abandoned.)

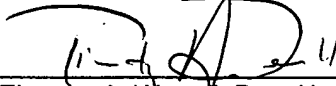
Nothing herein shall constitute an admission concerning the contents of any of the cited references, nor shall the inclusion of a reference herein be considered an admission that the reference constitutes prior art against the invention claimed in the above-identified application. Submission of the present document shall not be construed as an admission that a search has been made or that better art does not exist.

As far as is known to the undersigned, this Information Disclosure Statement is being filed before the payment of the issue fee, with a check for \$180.00, and a statement pursuant to 37 C.F.R. § 1.97(e).

While no fee is believed to be due, if this belief is in error, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-2319 (File No.: 463077-00275); Docket No. A-71386-8).

Respectfully submitted,  
DORSEY & WHITNEY LLP

Dated: May 12, 2006  
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Robin M. Silva, Reg. No. 38,304

*Filed Under 37 C.F.R. § 1.34*

Attachments: Substitute PTO/SB/08A for Form 1449A/PTO  
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Substitute for form 1449A/PTO  
(Modified)**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

1

20

**Complete if Known**

Application Number	10/822,231
Filing Date	March 26, 2004
First Named Inventor	Lazar, et al.
Art Unit	1644
Examiner Name	Crowder, Chun
Attorney Docket Number	A-71386-8 (463077-00275)

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	US-2001/0036459 A1	11-01-2001	Ravetch	
	A2	US-2002/0004587 A1	01-10-2002	Miller, et al.	
	A3	US-2002/0048772 A1	04-25-2002	Dahiyat et al.	
	A4	US-2002/0062010 A1	05-23-2002	Arathoon, et al.	
	A5	US-2002/0090648 A1	07-11-2002	Dahiyat et al.	
	A6	US-2002/0142374 A1	10-03-2002	Gallo, et al.	
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	A8	US-2002/0164328 A1	11-07-2002	Shinkawa, et al.	
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	A16	US-2003/0130827 A1	07-10-2003	Bentzien et al.	
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	A19	US-2003/0157108 A1	08-21-2003	Presta	
	A20	US-2003/0158289 A1	08-21-2003	Rusin, R. et al.	
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	A29	US-2004/0002587 A1	01-01-2004	Watkins, et al.	
	A30	US-2004/0043429 A1	03-04-2004	Dahiyat et al.	

Examiner  
SignatureDate  
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Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	10/822,231	
			Filing Date	March 26, 2004	
			First Named Inventor	Lazar, et al.	
			Art Unit	1644	
			Examiner Name	Crowder, Chun	
Sheet	2		20	Attorney Docket Number	A-71386-8 (463077-00275)

U.S. PATENT DOCUMENTS					
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	A31	US-2004/0043430 A1	03-04-2004	Dahiyat et al.	
	A32	US-2004/0062763 A1	04-01-2004	Mosser, et al.	
	A33	US-2004/0185045 A1	09-23-2004	Koenig, et al.	
	A34	US-2004/0191244 A1	09-30-2004	Presta	
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	A60	US-2005-0276799 A1	12-15-2005	Hinton, et al.	

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	A61	US-2006/0019316 A1	01-26-2006	Mayo, et al	
	A62	US-4,816,397	03-28-1989	Boss, et al.	
	A63	US-5,225,348	07-06-1993	Nagata, et al.	
	A64	US-5,266,491	11-30-1993	Nagata, et al	
	A65	US-5,328,987	06-12-1994	Maliszewski	
	A66	US-5,541,087	07-30-1996	Lo, et al.	
	A67	US-5,576,184	11-19-1996	Better, et al.	
	A68	US-5,623,053	04-22-1997	Gastinel et al.	
	A69	US-5,624,821	04-29-1997	Winter, et al.	
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	A75	US-5,885,573	03-23-1999	Bluestone, et al.	
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	A80	US-6,188,965 B1	02-13-2001	Mayo et al.	
	A81	US-6,194,551 B1	02-27-2001	Idusogie, et al.	
	A82	US-6,242,195 B1	06-05-2001	Idusogie, et al.	
	A83	US-6,269,312 B1	07-31-2001	Mayo et al.	
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	A86	US-6,358,733 B1	03-19-2002	Motwani et al.	
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	A90	US-6,485,726 B1	11-26-2002	Blumberg, et al.	

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			Examiner Name	Crowder, Chun	
Sheet	4		20	Attorney Docket Number	A-71386-8 (463077-00275)

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	A91	US-6,528,624 B1	03-04-2003	Idusogie, et al.	
	A92	US-6,538,124 B1	03-25-2003	Idusogie, et al.	
	A93	US-6,632,927 B2	10-14-2003	Adair, et al.	
	A94	US-6,649,165 B1	11-18-2003	Schubert	
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	B1	WO 00/42072 A2, A3	07-20-2000	Genentech Inc		
	B2	WO 98/47089 A1	11-22-1998	California Institute of Technology		
	B3	EP 1 255 209 A2	11-06-2002	California Institute of Technology		
	B4	WO 00/23564 A2, A3	04-27-2000	Xencor, Inc.		
	B5	WO 01/59066 A2, A3	08-16-2001	Xencor, Inc.		
	B6	WO 03/014325 A2, A3	02-20-2003	Xencor, Inc.		
	B7	EP 1 255 826 B1	00-13-2002	Xencor, Inc.		
	B8	EP 0 268 636 B1	01-08-1997	McKenzie, I. F., et al.		
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	B9	EP 0 383 799 B2	02-09-2005	Genentech, Inc.		
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	B11	EP 0 753 065 B1	05-14-2003	Celltech Therapeutics Limited		
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	B13	EP 0 888 125 B1	05-26-2004	Leung, S., et al.		
	B14	EP 0 904 107 B1	10-20-2004	Board of Regents, The University of Texas System		
	B15	EP 1 176 195 A1	01-30-2002	Kyowa Hakko Kogyo Co., Ltd.		
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	B17	EP 1 323 346 A2, A3	11-26-2003	Brigham And Women's Hospital, Inc.		
	B18	WO 00/09560 A2, A3	02-24-2000	Abgenix, Inc.		
	B19	WO 00/24782 A2, A3	05-04-2000	Amgen Inc.		
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	B22	WO 01/38490 A2	05-31-2001	The Trustees of Columbia University in the City of New York		
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	B25	WO 02/061090 A3	08-08-2002	Genentech, Inc.		
	B26	WO 02/061093 A1	08-08-2002	Genentech, Inc.		
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	B29	WO 02/44215 A2	06-06-2002	Cockbain, J.		
	B30	WO 03/016470 A2	02-27-2003	University of Virginia Patent Foundation		
	B31	WO 03/035835 A2, A3	05-01-2003	Genentech, Inc.		
	B32	WO 03/054213 A2	07-03-2003	Genentech, Inc.		
	B33	WO 03/089624 A2	10-30-2003	UAB Research Foundation		
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			Filing Date	March 26, 2004	
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			Art Unit	1644	
			Examiner Name	Crowder, Chun	
Sheet	6		20	Attorney Docket Number	A-71386-8 (463077-00275)

FOREIGN PATENT DOCUMENTS						
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	B34	WO 04/004662 A2	01-15-2004	Genentech, Inc.		
	B35	WO 04/004798 A2, A3	01-15-2004	The Brigham and Women's Hospital, Inc., et al.		
	B36	WO 04/016750 A3	02-26-2004	Macrogenics, Inc		
	B37	WO 04/022717 A2, A3	03-18-2004	The Government of the United States of America as Represented by the Secretary of the Department of Health and Human Services		
	B38	WO 04/024871 A2	03-25-2004	Morphotect, Inc.		
	B39	WO 04/024889 A2	03-25-2004	Elusys Therapeutics, Inc.		
	B40	WO 04/035752 A2	04-29-2004	Protein Designs Labs, Inc.		
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	B44	WO 04/092219 A2	10-28-2004	Protein Design Labs, Inc.		
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	B47	WO 05/000899 A2	01-06-2005	Biogen Idec Ma Inc.		
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	B52	WO 05/116078 A1	12-08-2005	Medexgen, Inc.		
	B53	WO 05/013090 A2	02-10-2005	DNA Twopointo Inc.		
	B54	WO 05/018572 A2	03-03-2005	Biogen Idec Ma Inc.		
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	B56	WO 05/027966 A2	03-31-2005	Genentech, Inc.		
	B57	WO 05/037867 A1	04-28-2005	Protein Design Labs Inc.		

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	B58	WO 05/040217 A2	05-06-2005	Cambridge University Technical Services Limited		
	B59	WO 05/047327 A2	05-26-2005	Biogen Idec Ma Inc.		
	B60	WO 05/060642 A2	07-07-2005	Alexion Pharmaceuticals, Inc.		
	B61	WO 05/063815 A2	07-14-2005	Biogen Idec Ma Inc.		
	B62	WO 05/070963 A1	08-04-2005	Applied Molecular Evolution, Inc.		
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	B66	WO 88/07089 A1	09-22-1988	Medical Research Council		
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	B76	WO 97/34631 A1	09-25-1997	Board of Regents; The University of Texas System		
	B77	WO 98/02462 A1	01-22-1998	Morphosys Gesellschaft für Proteinoptimierung MBH		
	B78	WO 98/23289 A1	06-04-1998	The General Hospital Corporation		
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	B80	WO 99/51642 A1	10-14-1999	Genentech, Inc.		
	B81	WO 99/54342 A1	10-28-1999	Umana, P., et al.,		

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	B82	WO 99/58572 A1	11-18-1999	Cambridge University Technical Services Limited	
	B83	WO 98/05787 A1	02-12-1998	Bristol-Meyers Squibb Company	

NON PATENT LITERATURE DOCUMENTS			
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	C2	ARMOUR, et al., "Recombinant human IgG molecules lacking Fc gamma receptor I binding and monocyte triggering activities," <i>Eur J Immunol</i> , 29:2613-2624 (1999).	
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	C6	HUTCHINS, et al., "Improved biodistribution, tumor targeting, and reduced immunogenicity in mice with a gamma 4 variant of Campath-1H," <i>PNAS USA</i> , 92:11980-11984 (1995).	
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	C8	KRAPP, et al., "Structural analysis of human IgG-Fc glycoforms reveals a correlation between glycosylation and structural integrity," <i>J Mol Biol</i> , 325:979-989 (2003).	
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	C15	AASE, A. et al. "The extended hinge region of IgG3 is not required for high phagocytic capacity mediated by Fc gamma receptors, but the heavy chains must be disulfide bonded," <i>Eur J Immunol.</i> , 23(7):1546-1551 (July 1993).		
	C16	ABADEH, S., et al., "Remodelling the oligosaccharide of human IgG antibodies: effects on biological activities," <i>Biochem Soc Trans.</i> , 25(4):S661 (November 1997).		
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	C22	BOLLAND, S. "A Newly Discovered Fc Receptor tha Explains IgG-Isotype Disparities in Effector Responses," <i>J. Immunol.</i> , 23:2-4 (July 2005).		
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	C29	BURMEISTER, W. P., et al., "Crystal structure of the complex of rat neonatal Fc receptor with Fc" <i>Nature</i> , 372:379-383 (November 24, 1994).		
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	C33	CARPENTER, P.A., et al., "Non-Fc Receptor-Binding Humanized Anti-CD3 Antibodies Induce Apoptosis of Activated Human T Cells," <i>Journal of Immunology</i> , 165:6205-6213 (2000).	
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		Application Number	10/822,231	
		Filing Date	March 26, 2004	
		First Named Inventor	Lazar, et al.	
		Art Unit	1644	
		Examiner Name	Crowder, Chun	
Sheet	19	20	Attorney Docket Number	A-71386-8 (463077-00275)

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	C197	CHADD, H., et al., "Therapeutic antibody expression technology," <i>Curr. Opin. Biotech.</i> , 12:188-194 (2001).	
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	C217	TRIKHA, M., "Monoclonal antibodies as therapeutics in oncology," <i>Curr. Opin. Biotech.</i> , 13:609-614 (2002).	
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